

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/00140

A. CLASSIFICATION OF SUBJECT MATTER  
Int.Cl<sup>7</sup> B41J2/447

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
Int.Cl<sup>7</sup> B41J2/447, H05B33/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2003  
Kokai Jitsuyo Shinan Koho 1971-2003 Toroku Jitsuyo Shinan Koho 1994-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category*   | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No.            |
|-------------|---|----------------------------------|
| X<br>Y<br>A | JP 5-57953 A (Toshiba Corp.),<br>09 March, 1993 (09.03.93),<br>Par. Nos. [0009] to [0012]; Figs. 1 to 2<br>(Family: none) | 1, 13<br>2, 6, 10-12<br>3-5, 7-9 |
| Y           | JP 5-4377 A (Fuji Xerox Co., Ltd.),<br>14 January, 1993 (14.01.93),<br>Par. No. [0022]; Fig. 1<br>(Family: none)          | 10, 11                           |
| Y           | JP 4-237993 A (Idemitsu Kosan Co., Ltd.),<br>26 August, 1992 (26.08.92),<br>Par. No. [0037]; Fig. 2<br>(Family: none)     | 11                               |

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance  
"E" earlier document but published on or after the international filing date  
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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art  
"&" document member of the same patent family

Date of the actual completion of the international search  
07 March, 2003 (07.03.03)

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18 March, 2003 (18.03.03)

Name and mailing address of the ISA/  
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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category*    | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|--------------|---|-----------------------|
| Y            | JP 3-187189 A (Nippon Telegraph And Telephone Corp.),<br>15 August, 1991 (15.08.91),<br>Full text; Fig. 1<br>(Family: none)     | 12                    |
| P, Y<br>P, A | JP 2002-103678 A (Ricoh Co., Ltd.),<br>09 April, 2002 (09.04.02),<br>Par. Nos. [0028] to [0031]; Figs. 2 to 3<br>(Family: none) | 2, 6<br>7             |
| A            | JP 3-138893 A (Tokyo Electric Co., Ltd.),<br>13 June, 1991 (13.06.91),<br>Full text; Figs. 1 to 8<br>(Family: none)             | 2-9                   |